

Amendments to the Specification

[0012] Referring to Figure 1, a hydraulic control system 10 includes an engine block 4, a piston 5, a connecting rod 6, a crankshaft 3, a hinged movable crankshaft assembly 1, a hydraulic positioning device 2, a maximum limiting stop 8, a minimum limiting stop 9, and hydraulic tubing 7.

[0013] Referring to Figure 2, the hydraulic fluid constant pressure reservoir 204, includes a spring-loaded piston to maintain desired hydraulic pressure 25, a pressure relief valve 23 allows fluid to pass from the hydraulic positioning device to the hydraulic fluid reservoir 24, and a pressure relief valve 21 allows fluid to flow from the reservoir to the hydraulic positioning device. Tubing 72 connects the hydraulic reservoir with the hydraulic positioning device.

~~[0014] Referring to Figure 3, a pressure versus volume plot for a cycle at full power and design compression ratio of 7:1.~~

~~{0015} Referring to Figure 4, a pressure versus volume plot for a cycle at 34% power and design compression ratio of 7:1.~~

~~{0016} Referring to Figure 5, a pressure versus volume plot for a cycle at 34% power and compression ratio of 19:1.~~

[0017] Referring to Figure 63, a geared coupling 30 between a movable crankshaft and a drive train. Gear includes a gear 11 attached to a moveable crankshaft-1, an idler gear 13, and a drive train gear 15 attached to a drive train-5. Bracket 12 connects gears 11 and 13, and bracket 14 connects gears 13 and 15.